



ACM\$ XML File Upload Process

Frequently Asked Questions, Data Dictionary and Instructions

This section outlines some frequently asked questions that the National Science Foundation (NSF) anticipates receiving concerning the transition to the Award Cash Management Service (ACM\$) and the associated XML File Upload Process. ACM\$ is a new approach to award payments and post-award financial processes, which organizations will access on Research.gov beginning in 2013. ACM\$ will transition financial processing of award payments from the current "pooling" method to an "award level detail" method. This will require the submission of award level payment amounts each time funds are requested.

1. What is the XML upload option?

ACM\$ on Research.gov will allow organizations to use the ACM\$ XML File Upload Process when completing their payment requests. The XML data file will be produced by the participating organization and will not rely on awardees downloading a template first. This guide assists financial users with that process. The data in the XML file must follow the structure listed in the data dictionary table available in this document. The table shows which fields are required, the field formatting requirements and the default values the system will recognize if the field is not supplied in the upload file.

2. How does the ACM\$ XML File Upload Process differ from the Excel File Upload Process?

The ACM\$ XML File Upload Process does not require the user to download a template. As long as the system query developed by your organization conforms to the data requirements outlined in this document, the system will recognize the payment request data contained in the XML file.

3. How will our organization perform the ACM\$ XML File Upload Process? Will there be a system to system link?

The ACM\$ XML File Upload Process will not be system to system. Instead, a financial user will need to:

1. Log into Research.gov as a NSF User, using your FastLane User ID and Password
(The organization number will be recognized based on user permissions and is not required to be part of the XML data file)
2. Create a new payment request
3. Select the payment date online (Not part of the XML data file)
4. Upload the XML data file
(Replaces alternate input methods of the payment amount requested for active awards)

5. Adjust Closed Awards (if necessary)

6. Certify the transaction

Note: Step 5 and 6 above will not be addressed within your XML data file and instead will be completed in Research.gov/ACM\$.

You will receive immediate feedback indicating whether the upload was successful or whether it failed along with identifying the errors.

4. Is there similar documentation available for the layout of the Excel data file?

The ACM\$ XLS/XLSX File Download and Upload Process will function in a very similar fashion as it does within the preparation and submission of the Federal Financial Report (FFR). If you wish to review the format of an Excel template, please download the current version from the FFR page on Research.gov. Please note, however, that the format of the ACM\$ template will differ from the FFR template.

5. Once our organization has created an XML data output, how can we test the file?

In this document, we have provided instructions on how to validate your XML data file. Please see the **Validating the XML Schema** section of this document.

Additional Considerations and ACM\$ Implications

This section outlines important considerations which NSF recommends your organization consider while evaluating the implementation of the ACM\$ File Upload Process option. Solutions to these considerations will be dependent on your organization's unique business processes and NSF recognizes that there is not one answer for every organization. These considerations are designed to assist your organization in brainstorming how you will tackle the design and development of your own XML implementation.

1. Internal Budget Overages *(recording award expenses that exceed the award amount)*

Does your organization permit Principal Investigators (PIs) to spend into deficit on your organization's financial system? If so, how will your organization develop the query to handle these budget overages? Will you attempt to automate the exclusion of these overages in the query language, or will you rely on a manual review?

ACM\$ Implication:

If your organization attempts to upload a payment request amount that exceeds the authorized budget of an award, the system will give the user an error.

2. At-Risk Spending *(recording award expenses prior to receiving the award)*

Does your organization utilize "at-risk spending?" "At-risk spending" means any spending your organization authorizes prior to receiving the NSF award letter allowing a PI to begin a project on schedule. It can also mean any spending your organization authorizes prior to receiving a continuing grant increment to allow a PI to continue a project without interruption. Remember, your organization would be permitting this spending at its own risk and may not be entitled to receive reimbursement for these expenditures until the funding had been officially authorized. If this does occur, how will your organization develop the query to handle any "at-risk spending" on NSF awards? Will these types of expenditures be excluded automatically?

3. Data Scrubbing *(reconciling award data in financial systems against NSF records)*

How will your organization perform data scrubbing activities to confirm that the award numbers entered into your sponsored projects system, conform to the formatting requirements of the Federal Award ID field?

ACM\$ Implication:

It is important that the Federal Award ID field only contain the seven numeric characters of an award number. If the prefix alpha characters are included, the file will receive errors.

4. Final Reporting *(reporting the final expense amount for an award)*

How will your organization determine whether you want to submit a "Final" request for a particular award? Will you attempt to automate this?

ACM\$ Implication:

If your organization does not select "Final" for a particular award, NSF will automatically consider expenditures final three months after the award expiration date, and NSF will financially close the award.

5. Recipient Account Number *(financial system identification numbers for awards)*

If your organization uses multiple internal accounts and fund numbers for one NSF award, how will you fill in the "Recipient Account Number" field since you are limited to 25 characters?

Additional Considerations about Recipient Account Numbers: If your organization doesn't use multiple account or fund numbers, how do you handle subcontracts that your organization issued on the NSF award? Do you track the subcontracts in the main account? How do you handle supplements that are issued with different Facilities & Administrative Costs (F&A) rate restrictions? (i.e. REU supplements)

6. Additional Reviews *(reconciliations and other activity related to validating award data)*

If your organization has historically performed reviews associated with the creation of the quarterly FFR, will you attempt to include these reviews into the preparation of the XML data file, or will these other reviews be handled manually on a separate quarterly basis?

Additional Information about Reviews: Examples of additional reviews that have been described to NSF during this process include, but are not limited to:

- a. A review of the award authorized amount loaded in an organization's financial system against the award amount provided by NSF in the FFR.
- b. A review of the payments posted to the organization's individual grant accounts or fund codes to confirm that payments were posted in the same fashion as they were requested.

Data Dictionary and XML Schema

The data in your XML file must follow the structure listed in the Data Dictionary. The dictionary shows which fields are required, the field formatting requirements and the default values the system will recognize if the field is not supplied in the upload file.

Data Dictionary

Field	XML Element	Required?	Default Value (if not in file)	Format
Federal Award Id	federalAwardId	Yes	N/A	Must be numeric Must be seven digits
Recipient Account Number	recipientAccountNumber	No	N/A	Maximum of 25 characters
Payment Amount Requested	paymentAmountRequested	Yes	N/A	Must be numeric Must be >= -9999999999.99 Must be <= 9999999999.99 Must not contain commas
Final Flag	finalFlag	No	"false"	Must be "true" or "false"

Sample Valid XML

The sample XML language is also contained in a separate file, available on Research.gov, called ***acmsupload.xml***.

[Click here to access *acmsupload.xml* from Research.gov.](#)

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<acmsupload
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="acmsupload.xsd">

  <paymentRequest>

    <federalAwardId>1200000</federalAwardId>

    <recipientAccountNumber>G120000000</recipientAccountNumber>

    <paymentAmountRequested>10000.00</paymentAmountRequested>

    <finalFlag>true</finalFlag>

  </paymentRequest>

  <paymentRequest>

    <federalAwardId>1400000</federalAwardId>

    <recipientAccountNumber>G140000000</recipientAccountNumber>

    <paymentAmountRequested>2222.55</paymentAmountRequested>

    <finalFlag>false</finalFlag>

  </paymentRequest>

  <paymentRequest>

    <federalAwardId>1600000</federalAwardId>

    <paymentAmountRequested>58887.00</paymentAmountRequested>

  </paymentRequest>

</acmsupload>
```

Validating the XML Schema

NSF also provides the XML schema which describes the structure of the XML document in a separate file, called ***acmsupload.xsd*** also available on Research.gov. Using this file, organizations can validate that their XML file conforms to the rules listed above prior to uploading the file to Research.gov.

[Click here to access *acmsupload.xsd* from Research.gov.](#)

Additionally, the following are examples of free tools that can be used to validate an XML file against the schema supplied by NSF.

- CoreFiling XML Schema Validator
<http://www.corefiling.com/opensource/schemaValidate.html>
- Microsoft – XML Notepad 2007
<http://www.microsoft.com/en-us/download/details.aspx?id=7973>

